

June 14 Dr. Joel S. Levine

The Impact of Moon & Mars Dust on Human Exploration

One of the most unexpected results of the Apollo Program was the discovery of a 1-2-inch layer of very fine, glassy dust on the Lunar surface. The dust had a very detrimental impact on the Apollo astronauts and their equipment. As NASA prepares to return humans to the Moon in the Artemis Program and plans a human mission to Mars, we must better understand the impact of lunar and planetary dust on astronauts and their equipment. Dr. Levine will discuss these issues based on material in his two recent books: *Dust in the Atmosphere of Mars and Its Impact on Human Exploration* (with Daniel Winterhalter & Russell Kerschmann), Cambridge Scholars Publishing, UK, 2018 and *The Impact of Lunar Dust on Human Exploration*, Cambridge Scholars Publishing, UK, 2021.



Since his 2011 NASA retirement after a 41-year career, Levine has been a Research Professor in Applied Science at the College of William & Mary. At NASA, Levine served as a Senior Research Scientist in Langley's Science Directorate, Program Scientist for the Mars Scout Program, Mars Exploration Program, Science Mission Directorate at NASA HQ and co-chair of the NASA Human Exploration of Mars Science Analysis Group planning for human exploration of Mars. In 2017, Levine was inducted into the NACA/NASA Langley Hall of Honor.